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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,223	11/02/2001	Lee Kamentsky	2657.2009-001	6935

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EXAMINER

YIMAM, HARUN M

ART UNIT	PAPER NUMBER
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2623

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/004,223	Applicant(s) KAMENSKY ET AL.	
	Examiner Harun M. Yimam	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/30/2007 has been entered.

Response to Arguments

2. Applicant's arguments filed 11/30/2006 have been fully considered but are moot in view of new ground(s) of rejection.

3. In response to applicants' argument (page 5, 3rd paragraph) that Kadansky does not teach notifying end node devices of an expected start time and duration information, applicants should note that column 32, lines 55-59 in Kadansky clearly discloses a method wherein the step of notifying the end node devices includes an expected start time and duration information wherein Kadansky discloses that *the sending starts 1.5 seconds from the beginning of the simulation* (column 32, lines 55-57), which reads on **an expected start time**. Furthermore, Kadansky discloses that the whole transmission

should take 22.4 and 23 seconds respectively (column 32, lines 57-59), which reads on duration information.

4. In response to applicants' argument (page 5, 5th paragraph - page 6, 1st paragraph) that the duration information is a result of calculating the time for the slowest bandwidth-limited link defined in the simulation model, not the Tree based Reliable Multicast protocol (TRAM) system in operation, applicants should note that the simulation model was built to support the design of TRAM and that TRAM protocol is modeled using said simulation (column 32, lines 28-59). Therefore, anything obtained in relation to the simulation model also applies to TRAM.

5. In response to applicants' argument (page 5, 4th paragraph - page 6, 4th paragraph) that Kadansky does not teach that the notification includes information indicating an expected end time for the scheduled transmission, applicants should note that as addressed in the response above and in the rejection of claim 5, since the notification information includes an expected start time and duration information (of the simulation model, which also applies to TRAM as described above) (column 32, lines 55-59), it is clear that the expected end time is there. For example, if the receivers are aware that the transmission starts 30 seconds from now and that it takes 23 seconds for the whole transmission, it is clear that the expected end time for the scheduled transmission is 53 seconds from now. Therefore, the rejection is proper and Kadansky does disclose the claimed limitations.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 5-9, 11-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadansky (US 6,507,562) in view of Dillon (US 2003/0206554) and further in view of Ronning (US 2003/0212992).

Considering claim 1, Kadansky discloses a method for content push synchronization for bulk data transfer in a multimedia network (column 27, line 65 – column 28, line 18), comprising:

scheduling transmission of bulk data content (the reliable multicast protocol model (TRAM) schedules packet transmission—column 16, lines 28-29 and column 29, lines 33-35);

notifying (by transmitting an alert beacon message) a plurality of end node devices (destination stations) of the scheduled bulk data transmission (column 6, lines 30-37), such notification including information indicating an expected end time (identified by the sequence number of the last data packet) for the scheduled transmission (column 15, lines 7-10 and column 33, lines 48-56);

at the expected end time for the scheduled transmission (upon receipt of the last transmitted data packet—column 33, lines 49-59), determining if the bulk data content was received as expected (column 4, lines 47-49 and column 5, lines 54-56); and

if not received as expected, sending a failure indication (NACK—column 4, lines 52-56 and column 38, lines 38-47).

Kadansky discloses transmission of data to all members of a group (column 5, lines 52-54). Kadansky further discloses members/receivers preparing to receive transmitted data by detecting the beginning of transmitted data (column 47, lines 1-5).

Kadansky fails to explicitly disclose end node devices attempting to selectively receive a subset of the content during the scheduled transmission and sender transmitting the data content via broadcast.

In analogous art, Dillon discloses attempting to selectively receive a subset of the content during the scheduled transmission (paragraph 0031, lines 1-5 and paragraph 0131, lines 1-6) and transmitting bulk data content via broadcast (paragraph 0040, lines 1-4 and paragraph 0154, lines 10-16).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kadansky's system to include selectively receiving a subset of the content and broadcast data transmission, as taught by Dillon, for the benefit of transmitting data to everyone in a multicast group and allowing the end point devices to receive preferred data.

Dillon further discloses that an end user is notified through the EPG (Electronic Program Guide) when reception of packages will take place (Dillon—paragraph 0154, lines 1-16). However, both Kadansky and Dillon fail to explicitly disclose that the notification, which includes information indicating an expected end time for the scheduled transmission occurs before the bulk data transmission.

In analogous art, Ronning discloses a notification (status screen/indicator to indicate download time) that occurs before bulk data transmission (the status indicator is at zero prior to the start of downloading the data and moves from left to right as the data is received filling up section 792 in figure 21A until the file is completely downloaded—paragraph 0090, lines 1-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system of Kadansky and Dillon to include notification that occurs before the bulk data transmission, as taught by Ronning, for the benefit of providing the end user with an expected download time for a certain data in advance, prior to receipt of data, by presenting a status indicator (paragraph 0090, lines 1-20 and paragraph 0091, lines 1-3).

Considering claim 5, it is met by the combination of Kadansky, Dillon and Ronning. In particular, Kadansky discloses a method wherein the step of notifying the

end node devices includes an expected start time and duration information (Kadansky—column 32, lines 55-59).

As for claim 6, it is met by the combination of Kadansky, Dillon and Ronning. In particular, Kadansky discloses a method wherein the step of notifying the plurality of end node devices comprises: delivering transmission schedules (beacon message) to the plurality of end node devices prior to the scheduled transmissions of bulk content (Kadansky—column 6, lines 30-37).

With regards to claim 7, it is met by the combination of Kadansky, Dillon and Ronning. In particular, Kadansky discloses a method wherein the step of notifying the plurality of end node devices includes delivering content control data comprising destination port addresses (column 37, lines 10-15) and data transmission times for the subset of content (start time, end time, or duration—column 32, lines 55-59).

Regarding claim 8, it is met by the combination of Kadansky, Dillon and Ronning. In particular, Dillon discloses a method wherein the step of selectively receiving content comprises: listening (monitoring) to the scheduled transmission for the subset of content on the destination port addresses at the data transmission times (paragraph 0031, lines 1-5); selecting the subset of content during the scheduled transmission; and receiving the subset of content (selectively receives content from a multicast network—paragraph 0031, lines 1-5).

Considering claim 9, it is met by the combination of Kadansky, Dillon and Ronning. In particular, Kadansky discloses a method wherein the destination port addresses are multicast port addresses (Kadansky—column 37, lines 10-21).

With regards to claim 11, it is met by the combination of Kadansky, Dillon and Ronning. In particular, Kadansky discloses a method wherein the content is a plurality of promotions (Kadansky—column 11, lines 33-34).

Regarding claim 12, it is met by the combination of Kadansky, Dillon and Ronning. In particular, Kadansky discloses a method wherein the scheduled transmissions are scheduled multicast transmissions (Kadansky—column 6, lines 19-40 and column 37, lines 10-21).

Considering claim 13, it is met by the combination of Kadansky, Dillon and Ronning. In particular, Dillon discloses a method wherein the scheduled transmissions are scheduled broadcast transmissions (Dillon—paragraph 0040, lines 1-4 and paragraph 0154, lines 10-16).

As for claim 14, it is met by the combination of Kadansky, Dillon and Ronning. In particular, Kadansky discloses a method wherein the content is transmitted multiple

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times during the scheduled transmissions to ensure that the plurality of end node devices receive the subset of content (Kadansky—column 15, lines 10-12).

With regards to claim 16, Kadansky and Ronning disclose a method for content push synchronization for bulk data transfer in a multimedia network. Kadansky further discloses that receivers utilize sequence numbers, which identify a particular data transmission, to request retransmission of missing packets (column 14, lines 16-20).

Kadansky and Ronning fail to explicitly disclose that a module ID is included in the failure notification.

In analogous art, Dillon discloses that a module ID (unique package identifiers) is included in the failure notification (paragraph 0135, lines 5-12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system of Kadansky and Ronning to include a module ID in the failure notification, as taught by Dillon, for the benefit of identifying the data content being requested for retransmission.

8. Claims 2, 3, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadansky (US 6,507,562) and Dillon (US 2003/0206554) in view of Ronning (US 2003/0212992), as applied to claim 1 above, and further in view of Gupta (6,577,599).

As for claim 2, Kadansky, Dillon and Ronning disclose retransmission of bulk data content (missed data packets—column 5, lines 61-67). Kadansky and Dillon further disclose unicast data flow of messages (Kadansky—column 6, lines 60-62).

Kadansky, Dillon and Ronning fail to explicitly disclose retransmitting bulk data content to the failing network device via a unicast.

In analogous art, Gupta discloses a method comprising: retransmitting the bulk data content (missed data packets) to the failing network device via a unicast (Gupta—step 520 in figure 5, column 7, lines 35-41 and column 12, lines 37-51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system of Kadansky, Dillon and Ronning to include retransmission of bulk data content via a unicast, as taught by Gupta, for the benefit of preventing network congestion by individually retransmitting the missed data packets to the appropriate receivers.

With regards to claim 3, it is met by the combination of Kadansky, Dillon, Ronning and Gupta. In particular, Kadansky discloses a method wherein the failure indication (NACK) indicates a subset of unreceived content and, transmitting only the indicated subset (Kadansky—column 4, lines 51-61 and column 5, lines 61-64).

Regarding claim 15, it is met by the combination of Kadansky, Dillon, Ronning and Gupta. In particular, Kadansky discloses a method wherein a failure indication is sent again if the retransmission fails (Kadansky discloses that the missed packets are retransmitted until they are all received—column 5, lines 61-64).

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kadansky (US 6,507,562) and Dillon (US 2003/0206554) in view of Ronning (US 2003/0212992), as applied to claim 1 above, and further in view of McNeil (US 6,421,706).

Regarding claim 4, Kadansky, Dillon and Ronning disclose a method for content push synchronization for bulk data transfer in a multimedia network.

Kadansky, Dillon and Ronning fail to disclose that transmitting the bulk content additionally comprising using a unicast UDP protocol.

In analogous art, McNeil discloses a method wherein the step of transmitting the bulk content additionally comprising using a unicast UDP protocol (column 7, lines 62-66).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system of Kadansky, Dillon and Ronning to include unicast UDP protocol data transmission, as taught by McNeil, for the benefit

of providing an alternate means of data transmission in cases where an endpoint device fails to receive low bit rate video and audio data (column 7, lines 54-66).

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kadansky (US 6,507,562), Ronning (US 2003/0212992) and Dillon (US 2003/0206554) in view of McNeil (US 6,421,706), as applied to claim 4 above, and further in view of Wada (US2003/0007481).

As for claim 10, Kadansky, Dillon, Ronning and McNeil disclose a method for content push synchronization for bulk data transfer in a multimedia network. In particular, Kadansky discloses that multicasting specifies a destination IP address that is a multicast address for the message (column 37, lines 10-20).

Kadansky, Dillon, Ronning and McNeil fail to explicitly disclose that the destination port addresses are broadcast port addresses.

In analogous art, Wada discloses a method wherein the destination port addresses are broadcast port addresses (paragraph 0164, lines 1-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system of Kadansky, Dillon, Ronning and McNeil to include broadcast port addresses as destination port addresses, as taught by Wada, for the benefit of transmitting data to all the devices attached to a network (paragraph 0164, lines 12-14).

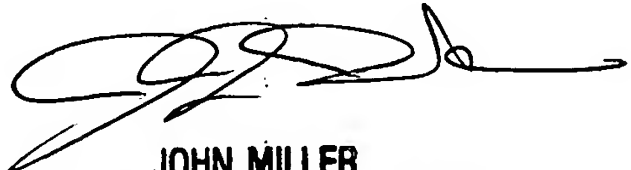
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harun M. Yimam whose telephone number is 571-272-7260. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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